

Spring 1984



NEWS

Geological Society of Minnesota

MINNEAPOLIS, MINNESOTA



FIRST CLASS



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PLEASE FORWARD

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GEOLOGICAL SOCIETY OF MINNESOTA

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PRESIDENT'S MESSAGE

March April May 1934

Greetings! This is the first opportunity I've had to express to the general membership my thoughts and feelings about the Society and its opportunities and challenges.

For me it has been a great experience . . . one of growth in a new field and a lot of good fellowship. First of all, I wish to thank all of you for the support that you have given to this Society so that it can carry out its purposes of providing public lectures and services, as well as field trips which are exciting and educational. Also, a lot of credit goes to those of you who have developed a and supported the GSM booth at the State Fair.

As I look back at my entry into the Society, I wish to thank the Robert Leacocks for encouraging and recruiting me into membership. Although I've not had any formal education in Geology, this Society has helped me to understand and appreciate the sights around us. Just being in Minnesota one cannot help wondering how the varied features of the landscape came to be.

The lectures and field trips sponsored by GSM are fantastic, and association with others with similar interests has been most stimulating. Certainly there are those of your acquaintances whom we can draw into membership in order for the Society to grow and continue.

Lectures for the 1983-84 season are now completed. We've had a lot of interest on them, and the lecturers have been stimulating and most gracious to provide the time for questions and answers following our customary coffee break.

Plans are in the making for another interesting series for the 1984--85 season. Field trip planning is just complete. Be sure to sign up at the Spring Banquet to indicate your interest in the field trips. You wouldn't want to miss any of them. This would be another good occasion to bring a friend or two and introduce them to most unforgettable experiences.

Dr. Gerald Webers has been most gracious to conduct mineral and fossil labs at Macalester again this past year. I have heard from several who have not had this experience before, and their excitement and enthusiasm has been a pleasure to see.

Elsewhere in this newsletter is more information on the Spring Banquet. See you there and bring a friend.

George H. Johnson



BANQUET

BANQUET (ban'kwet), n. 1. a great feast, a banquet. 2. a formal dinner, a banquet. 3. a formal dinner, a banquet. 4. a formal dinner, a banquet. 5. a formal dinner, a banquet. 6. a formal dinner, a banquet. 7. a formal dinner, a banquet. 8. a formal dinner, a banquet. 9. a formal dinner, a banquet. 10. a formal dinner, a banquet. 11. a formal dinner, a banquet. 12. a formal dinner, a banquet. 13. a formal dinner, a banquet. 14. a formal dinner, a banquet. 15. a formal dinner, a banquet. 16. a formal dinner, a banquet. 17. a formal dinner, a banquet. 18. a formal dinner, a banquet. 19. a formal dinner, a banquet. 20. a formal dinner, a banquet. 21. a formal dinner, a banquet. 22. a formal dinner, a banquet. 23. a formal dinner, a banquet. 24. a formal dinner, a banquet. 25. a formal dinner, a banquet. 26. a formal dinner, a banquet. 27. a formal dinner, a banquet. 28. a formal dinner, a banquet. 29. a formal dinner, a banquet. 30. a formal dinner, a banquet. 31. a formal dinner, a banquet. 32. a formal dinner, a banquet. 33. a formal dinner, a banquet. 34. a formal dinner, a banquet. 35. a formal dinner, a banquet. 36. a formal dinner, a banquet. 37. a formal dinner, a banquet. 38. a formal dinner, a banquet. 39. a formal dinner, a banquet. 40. a formal dinner, a banquet. 41. a formal dinner, a banquet. 42. a formal dinner, a banquet. 43. a formal dinner, a banquet. 44. a formal dinner, a banquet. 45. a formal dinner, a banquet. 46. a formal dinner, a banquet. 47. a formal dinner, a banquet. 48. a formal dinner, a banquet. 49. a formal dinner, a banquet. 50. a formal dinner, a banquet. 51. a formal dinner, a banquet. 52. a formal dinner, a banquet. 53. a formal dinner, a banquet. 54. a formal dinner, a banquet. 55. a formal dinner, a banquet. 56. a formal dinner, a banquet. 57. a formal dinner, a banquet. 58. a formal dinner, a banquet. 59. a formal dinner, a banquet. 60. a formal dinner, a banquet. 61. a formal dinner, a banquet. 62. a formal dinner, a banquet. 63. a formal dinner, a banquet. 64. a formal dinner, a banquet. 65. a formal dinner, a banquet. 66. a formal dinner, a banquet. 67. a formal dinner, a banquet. 68. a formal dinner, a banquet. 69. a formal dinner, a banquet. 70. a formal dinner, a banquet. 71. a formal dinner, a banquet. 72. a formal dinner, a banquet. 73. a formal dinner, a banquet. 74. a formal dinner, a banquet. 75. a formal dinner, a banquet. 76. a formal dinner, a banquet. 77. a formal dinner, a banquet. 78. a formal dinner, a banquet. 79. a formal dinner, a banquet. 80. a formal dinner, a banquet. 81. a formal dinner, a banquet. 82. a formal dinner, a banquet. 83. a formal dinner, a banquet. 84. a formal dinner, a banquet. 85. a formal dinner, a banquet. 86. a formal dinner, a banquet. 87. a formal dinner, a banquet. 88. a formal dinner, a banquet. 89. a formal dinner, a banquet. 90. a formal dinner, a banquet. 91. a formal dinner, a banquet. 92. a formal dinner, a banquet. 93. a formal dinner, a banquet. 94. a formal dinner, a banquet. 95. a formal dinner, a banquet. 96. a formal dinner, a banquet. 97. a formal dinner, a banquet. 98. a formal dinner, a banquet. 99. a formal dinner, a banquet. 100. a formal dinner, a banquet.



MONDAY EVENING, 23 APRIL, 1983

DUFF'S SMORGASBORD

WARD'S TERRACE SHOPPING CENTER, ROBBINSDALE

DINNER BUFFET BEGINS ABOUT 6 P.M.

EVENING PROGRAM BEGINS AT 7:30 P.M.

GUEST SPEAKER: Daryl R. Karns, PhD General College, U of M

A Cold Look at Warm-Blooded Dinosaurs is the title of our talk by Daryl R. Karns, PhD. Daryl just finished his doctorate in the U's Department of Ecology and Behavioral Biology, and is currently employed by the General College at the U.

He has been fascinated by dinosaurs and other reptiles since childhood. He has developed continuing research interests in the thermal physiology of animals, and in disseminating accurate and unbiased information about controversies in science to the general public.

TOTAL COST FOR DINNER AND PROGRAM: \$7.00 per person

(Because of the physical arrangements at Duff's, there is no option this year of attending the program without also participating in the buffet smorgasbord.)

Duff's is located on the southwestern corner of West Broadway and 36th Avenue, N., about four miles northwest of downtown Minneapolis. The location is served by bus line #14 (any letter except 14K, 14L, or 14M). Buses run regularly during rush hour; buses return to downtown Minneapolis from Duff's at 9:24 P.M., 9:54 P.M., and 10:54 P.M..

Purchase tickets "at the door" on the evening of 25 Apr a table inside the entrance of Duff's will be staffed from 5:30 P.M. to about 7:30 P.M. Please bring correct change.

*Mat
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HINTS FOR FIELD TRIPPERS

Since our field trips are primarily for working rather than sight seeing, the following suggestions are offered:

- 1 / Clothing: Casual and practical, preferably layers that can be added or removed for maximum comfort; comfortable walking shoes or boots. Plastic rain coat and hood.
- 2 / Equipment: Plastic bags, masking tape, pens, note book, geologists hammer.
- 3 / Food and drink: We always have lunch in the field. Bring drinking water as well as other beverage. Busses do not have drinking water.
- 4 / Optional items: Camera, field glasses, hand lense, rain boots. Rock or fossil identification guides.
- 5 / Overnight: In addition to usual items, plan for more meals in the field with canned or dry foods that do not need refrigeration.
- 6 / Plan to spend the whole day; schedules tend to be flexible. We will return when we arrive.

Note: Minnesota Geological Survey has some booklets on mineral and fossil collecting.

Willy 'n Ethel ☐ by Joe Martin



"LET'S LEAVE IT AS IT IS AND CALL IT A TYRANNOSAURUS HOOPERDOO."

Dennis the Menace / By Hank Ketcham



"It's gonna come in handy some time when I need a rock just this size."

FIELD TRIPS

Field trips this summer will feature outstanding learning experiences, as well as fun. Highly qualified leaders will be interpreting the geology of several parts of Minnesota for us. All trips will be by car caravan.

June 9-10 -- Bedrock Geology of the Duluth, North Shore and Gunflint Trail Areas with Dr. Paul Weiblen, University of Minnesota.

Dr. Weiblen will show us how this northeastern Minnesota region's geologic history from about 2.7 billion to about 1.1 billion years was worked out by looking at the distinctive features of the lower, middle and upper Precambrian rocks found here. Each of these periods is characterized by a unique succession of tectonic, magmatic, metamorphic and surficial events which he will describe by showing us the field evidence.

The trip will begin Saturday morning from Duluth, with arrangements being made to stay Friday night at the U.M.D dormitory. Those who cannot drive up Friday evening can join us Saturday at the first stop in Duluth at approximately 9 A.M. We will then proceed to the Gunflint Trail and lunch at Kaufert's Gunflint Lake Lodge, one of the beauty spots of the border country. The afternoon will be spent field stopping along the Gunflint Trail, followed by a pot-luck picnic supper featuring Dr. Weiblen's famous beer pot roast. Overnight accommodations will be your choice of camping or lodge. On Sunday we will be making field stops along Lake Superior, first driving to Grand Portage and then working our way back to Duluth. We should arrive there about supper time.

July 7 (date tentative) -- The Sedimentary Environments of the Twin Cities During the Cambrian and Ordovician Periods led by Dr. Christopher Paola, University of Minnesota.

We will have an opportunity to see how a sedimentologist interprets from field evidence a region's past environments, and how these environments change over time. Dr. Paola will reconstruct for us our own Twin Cities area during the early Paleozoic era, emphasizing points he made in his fine lectures to us this past year. We will see through the eyes of a sedimentologist the interrelationships of various sedimentary structures at several localities from Taylor's Falls to the Twin Cities. Terrestrial, near-shore, and shelf environments of the different seas over both horizontal distance and through time will become evident to us. We also may be able to visit the Hydrology Laboratory to learn more about research in the field of sedimentology.

Aug 4 -- A Field Exercise to Determine Where a Bedrock Unit Lies with Dr. George Shaw, University of Minnesota.

We will become field geologists for the day, mapping the contact of the Glenwood Shale and the Platteville Limestone in the Twin Cities. Our problem will be to measure the elevation of this contact at three points -- Shadow Falls, Minnehaha Falls, and the Twin Cities Brickyard -- and to map this information in order to predict where else in the Twin Cities the base of the Platteville Limestone will outcrop. We will learn something about a geologist's field methods, his tools (including the Brunton compass), and mapping. Dr. Shaw will also explain how the Mississippi River gorge and Minnehaha Falls were formed, and give us an opportunity to look for fossils in the fossil-rich Decorah Shale. Lunch will be at Minnehaha Falls.

FIELD TRIPS

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Aug 18-19 -- Tower-Soudan and the Western Vermillion District led by Dr. David Southwick, Minnesota Geological Survey.

The rocks of this 2700 million year old volcanic-sedimentary greenstone belt in the Western Vermillion District will be shown to us by Dr. David Southwick. He will point out the interrelationships of these rocks, including the Ely Greenstone, the Soudan Iron Formation and the Lake Vermillion Formation. We also may be able to tour the Soudan Iron Mine, now a Minnesota State Park. Once again, accommodations will be either camping or motelling, with a pot-luck picnic supper for Saturday evening.

These ancient rocks of the Canadian Shield indicate a violent early history -- lava eruptions under seas then covering the region, volcanic explosions building up debris piles into land masses, sediments eroding from the land back into the sea, more materials precipitating from the water onto the sea floor, and batholith-sized bodies of magma working up into the earth's crust. Dr. Southwick has studied this area extensively and is currently working here on a mapping project for the Minnesota Geological Survey.

Bob Gunville, Field Trip Chairman, will post a sign-up sheet at the banquet, as well as at the last meeting. All people on this list will be contacted and given further information before each trip. Be sure your name is on it if you think you might be interested in attending any of them. You may call Bob or Marcia at 574-1421 if you do not sign up at these meetings.

EDITOR STEPS DOWN

With the resignation of Ethel Shinek as Editor of the News Letter, the Board is actively looking for an editor.

The job qualifications include average writing ability, some typing desirable, interest or experience in Journalism, patience and ingenuity. Incidentally, there is a fringe benefit; the use of an IBM Selectric typewriter, property of GSI. The membership is not very critical and you have a chance to be creative. As it is a quarterly, only at publication times will it take up time. The main ingredient is interest in doing the job.

REMINDER TO PROCRASTINATORS

Bob Handschin, Membership Secretary, urges that members who have not paid their current dues please do so. As you know, dues are the only source of income for the Society.

IN MEMORIAM

Bernice Tepel died suddenly of a heart attack on March 8. Bernice has been an enthusiastic member since joining in 1967. A former board member, she regularly attended lectures and field trips. Hail and Farewell, good friend.